What is claimed is:

1. A method for producing a fused polypeptide comprising the steps of:
   (a) immobilizing a first polypeptide or portion thereof fused to a first intein fragment on a solid support;

   (b) immobilizing a second polypeptide or portion thereof fused to a second intein fragment on a solid support wherein said second intein fragment is complementary to said first intein fragment; and

   (c) reacting said first and second immobilized polypeptides under conditions which favor transplicing of said first and second polypeptide to produce a fused polypeptide comprising said first and second polypeptides.

2. The method of claim 1, further comprising the step of eluting the fused polypeptide from the solid support.

3. The method of claim 1, wherein said first and second polypeptides are selected from the group consisting of peptides, proteins and enzymes.

4. The method of claim 1, wherein said solid support is selected from the group consisting of affinity based supports, chips, plates, biochip supports, glass wafers and microtiter plates.

5. The method of claim 1, wherein the first and second intein fragments are selected from the group consisting of naturally split inteins or artificially split inteins.

6. The method of claim 5, wherein said first and second intein fragments are obtained from an intein selected from the group consisting of the Ssp DnaE intein, Ssp DnaB intein, *Mtu* RecA intein, Psp Pol-I intein, PI-*pfu*I intein or PI-*pfu*II intein.

7. The method of claim 1, wherein the first and second intein fragment further comprised an affinity binding domain.

8. The method of claim 7, wherein the affinity binding domain is selected from the group consisting of the chitin binding domain from *B. circulans*, the maltose binding protein from *E. coli*, a His tag, cellulose binding protein or a Flag-tag.

9. The method of claim 1, wherein said first polypeptide comprises an N-terminal intein fragment fused to the C-terminus of said first polypeptide.

10. The method of claim 1, wherein said second intein fragment comprises a C-terminal intein fragment fused to the N-terminus of said second polypeptide.

11. A method for producing a cyclic polypeptide comprising the steps of:

(a) fusing the C-terminal portion of a split intein to the N-terminus of a target polypeptide and fusing the N-terminal portion of a split intein to the C-terminus of said target polypeptide to produce a fused polypeptide;

(b) fusing an affinity binding domain to said fused polypeptide;

(c) immobilizing the product of step (b) on a solid support; and

(d) incubating the immobilized precursor under conditions that favor formation of the cyclic polypeptide.

12. A method for the *in vivo* production of a cyclic polypeptide comprising the steps of:

(a) fusing the C-terminal portion of a split intein to the N-terminus of a target polypeptide and fusing the N-terminal portion of a split intein to the C-terminus of said target polypeptide to produce a fused polypeptide; and

(b) reacting said fused polypeptide *in vivo* under conditions favoring the formation of a cyclic polypeptide.

13. The method of claim 11, further comprising the step of eluting said cyclic polypeptide from said solid support.

14. The method of claims 11 or 12, wherein said first and second polypeptides are selected from the group consisting of peptides, proteins or enzymes.

15. The method of claim 11, wherein said solid support is selected from the group consisting of affinity based supports, chips, plates, biochip supports, glass wafers or microtiter plates.

16. The method of claims 11 or 12, wherein said split intein is a naturally split intein.

17. The method of claims 11 or 12, wherein said split intein is an artificially split intein.

18. The method of claim 11, wherein the affinity binding domain is selected from the group consisting of the chitin binding domain, the maltose binding protein, a His tag, the cellulose binding protein or a Flag-tag.